

Piecing it Together:

Photo Mosaic Activity

Captain's Notes



Overview

Students will piece together individual images of a shipwreck and create a photo mosaic like real maritime archaeologists.

Difficulty/Grade Level

Easy-Moderate/Elementary

Suggested Group Size

3-4 students per group

Time

1 Hour

Objectives

Students will learn how photo mosaics help archaeologists document and interpret shipwreck sites.

Helpful Hints

Use a different color paper for the Shipwreck Layout so the students will be able to see where they have already placed their blocks.

Remove all of the blocks that do not have any part of the shipwreck on them.

You will only need the vessel histories of the Pewabic, Nordmeer, and Windiate.

Share the story of the E.B. Allen for comparison or to make the exercise more challenging.

Skills and Strategies

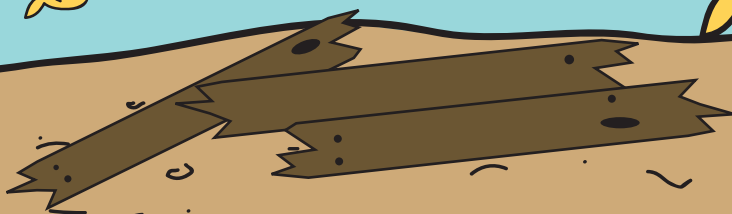
- Visual Identification
- Teamwork
- Problem Solving

Materials

- 2 Shipwreck Layout sheets (both bow and stern sections)
- Scissors
- Paper clips
- Labeled envelopes
- Vessel Histories (1 per student)
- Parts of a Ship diagram (1 per student)
- Site Plans vs. Photo Mosaics sheet (1 per student)

Preparation

1. Make 2 copies of each of the ship layouts on 11"x17" paper (the ships are cut into halves- bow and stern sections)
2. Cut out blocks on 1 sheet of each different ship layout- keep separate from one another
3. Scramble each ship's pieces and paper-clip these pieces together and put in separate envelopes labeled with the name and section of the ship.
4. Lay out the second copy of the ship layouts around the room. Make sure that the bow and stern sections of the same ship are not next to each other.



Procedures

1. Read vessel histories to students before the activity begins.
2. Pass out Parts of a Ship Diagram and discuss the differences between types of vessels. Look for features like sails, propellers, smoke stacks, etc.
3. Discuss photo-mosaics and site plans (See Site Plans vs. Photo Mosaics)
4. Break the class into groups of 3-4 students.
5. Assign each team to a specific wreck but do not tell them which wreck it is. Teams will have to figure this out during the discussion.
6. Give each group 1 paper clipped bundle of blocks matching the section of the ship they have been assigned.

Shipwreck Challenge

Create your own mosaic by drawing a picture of a ship then cutting it into pieces. Have a partner try and put your mosaic together.

Figure It Out



In your teams, try and decide which wreck you think your photo mosaic might be. Why?

Discussion

- What type of ship did each team have and why do they think it is that type?

The bulk freighter Nordmeer, because it does not have any masts, it doesn't have a life boat next to it, and it is not broken apart like the other ships. It also has many large hatches for lots of cargo.

The steam propeller Pewabic, because it has two smoke stacks for the steam engine, no masts, no life boat, and it is made of wood. It also has a large hole in the deck where salvagers took out the copper cargo.

The wooden schooner Windiate, because it has masts, the deck and hatch covers are still there, and the lifeboat is sitting next to the wreck.

- How do archaeologists use photo mosaics to better understand shipwreck sites?

Photo mosaics allow archaeologists to see a lot more detail than if they took just one picture. When archaeologists are diving, they can only see a little of the wreck at a time. By creating a photo mosaic, they can study the whole thing, but still see all the detail they did when they were up close.

Archaeologists also use photo mosaics to document deep wrecks because divers have very limited time to measure and draw the sites.

- What is the difference between a site plan and a photo mosaic?

Site plans are carefully measured drawings made of shipwreck sites. Photo mosaics are made of many small pictures put together to make a large picture of shipwreck sites.

Reeling It In

Review the differences between site plans and photo mosaics. Explain that archaeologists often use both to fully document and interpret a shipwreck site. Taking pictures of a site is a great way to document how shipwrecks look on the bottom. By taking only pictures and leaving only bubbles, we all can ensure the preservation of these amazing underwater treasures.

Further Information

- Visit thunderbay.noaa.gov and the Alpena County Library for information about the shipwrecks of Thunder Bay and further education.
- Visit sanctuaries.noaa.gov for information about the Maritime Heritage Program and other National Marine Sanctuaries.

